CLAIMS

WHAT IS CLAIMED:

1   1.   A method for restoring resources on a computer, comprising:

2   providing a configuration database including resource information;

3   receiving a restoration request including a computer identifier associated with the

4   computer;

5   accessing the configuration database based on the computer identifier to identify a

6   restorable resource associated with the computer; and

7   providing the restorable resource to the computer.

1   2.   The method of claim 1, further comprising installing the restorable resource on

2   the computer.

1   3.   The method of claim 1, wherein providing the restorable resource to the

2   computer includes providing the restorable resource to a server connected to the computer.

1   4.   The method of claim 3, further comprising accessing the computer through the

2   server to install the restorable resource on the computer.

1   5.   The method of claim 1, wherein providing the restorable resource to the

2   computer includes providing an address for the restorable address.

1   6.   The method of claim 1, further comprising authenticating the restoration

2   request.

1   7.   The method of claim 1, wherein providing the restorable resource comprises

2   providing an encrypted restorable resource.

1   8.   The method of claim 7, wherein the encrypted restorable resource is encrypted

2   with a private key, the method further comprising providing a public key corresponding to

3   the private key to the computer.

1   9.   The method of claim 8, further comprising:

2   decrypting the encrypted restorable resource using the public key; and

3   installing the restorable resource on the computer.

1   10.   The method of claim 1, further comprising encrypting the restorable resource

2   with a public key associated with the computer.

1   11.   The method of claim 10, further comprising:

2   decrypting the encrypted restorable resource using a private key corresponding to the

3   public key; and

4   installing the restorable resource on the computer.

1   12.   The method of claim 1, further comprising registering a plurality of installed

2   resources associated with the computer in the configuration database.

1   13.   The method of claim 12, wherein registering the plurality of installed

2   resources includes providing a resource name and a computer identifier associated with the

3   computer.

1 14. The method of claim 13 wherein registering the plurality of installed resources

2 includes providing the resource name and computer identifier in an encrypted file.

1 15. The method of claim 1, further comprising billing a user based on the

2 restoration request.

1 16. The method of claim 12, further comprising billing a user based on the

2 plurality of installed resources registered.

1 17. The method of claim 1, wherein providing the configuration database includes

2 providing a configuration database having resource identifying information, resource version

3 information, and resource location information.

1 18. The method of claim 1, wherein providing the restorable resource comprises:

2 sharing a secret key with the computer;

3 encrypting a random number with the secret key;

4 generating a session key based on the secret key and the encrypted random number;

5   and

6 providing the restorable resource using the session key.

1 19. The method of claim 1, further comprising;

2 registering a set of installed resources for a plurality of computers;

3 billing a user at a first rate for installed resources that are unique to one of the

4   computers; and

5 billing the user at a second rate, different than the first rate, for installed resources that

6 are common to at least two of the computers.

1 20. The method of claim 12, wherein registering the plurality of installed

2 resources includes at least one of providing an address for the installed resource and storing

3 the installed resource, and the method further comprises billing a user at a first rate for

4 installed resources that registered by providing the address for the installed resource, and

5 billing the user at a second rate, different than the first rate, for installed resources that are

6 registered by storing the installed resource.

1 21. The method of claim 1, further comprising:

2 identifying an available upgrade for the restorable resource; and

3 offering the upgrade of the restorable resource in lieu of the restorable resource.

1 22. A computer system, comprising:

2 a computer having a plurality of installed resources; and

3 a configuration manager coupled to the computer and adapted to store a configuration

4 database including resource information associated with the computer, receive

5 a restoration request from the computer including a computer identifier

6 associated with the computer, access the configuration database to identify a

7 restorable resource based on the computer identifier associated with the

8 computer, and provide the restorable resource to the computer.

1 23. The computer system of claim 22, wherein the computer is adapted to install

2 the restorable resource.

1   24.   The computer system of claim 22, further comprising a server coupled to the

2   computer and adapted to receive the restorable resource and install the restorable resource on

3   the computer.

1   25.   The computer system of claim 22, further comprising a server coupled to the

2   computer, the configuration manager being housed on the server.

1   26.   The computer system of claim 22, wherein the configuration manager is

2   adapted to provide the restorable resource to the computer by providing an address for the

3   restorable address.

1   27.   The computer system of claim 22, wherein the configuration manager is

2   adapted to authenticate the restoration request.

1   28.   The computer system of claim 22, wherein the configuration manager is

2   adapted to provide an encrypted restorable resource.

1   29.   The computer system of claim 28, wherein the encrypted restorable resource is

2   encrypted with a private key, and the configuration manager is adapted to provide a public

3   key corresponding to the private key to the computer.

1   30.   The computer system of claim 29, wherein the computer is adapted to decrypt

2   the encrypted restorable resource using the public key and install the restorable resource on

3   the computer.

1   31.   The computer system of claim 24, wherein the configuration manager is

2   adapted to provide an encrypted restorable resource to the server, the encrypted restorable

3   resource is encrypted with a private key, and the configuration manager is adapted to provide

4   a public key corresponding to the private key to the server.

1   32.   The computer system of claim 31, wherein the server is adapted to decrypt the

2   encrypted restorable resource using the public key and install the restorable resource on the

3   computer.

1   33.   The computer system of claim 22, wherein the configuration manager is

2   adapted to encrypt the restorable resource with a public key associated with the computer.

1   34.   The computer system of claim 33, wherein the computer is adapted to decrypt

2   the encrypted restorable resource using a private key corresponding to the public key and

3   install the restorable resource.

1   35.   The computer system of claim 24, wherein the configuration manager is

2   adapted to encrypt the restorable resource with a public key associated with the computer,

3   and the server is adapted to decrypt the encrypted restorable resource using a private key

4   corresponding to the public key and install the restorable resource on the computer.

1   36.   The computer system of claim 22, wherein the computer is adapted to register

2   a plurality of installed resources associated with the computer in the configuration database.

1   37.   The computer system of claim 36, wherein the computer is adapted to register

2   the plurality of installed resources by providing a resource name and a computer identifier

3   associated with the computer.

1   38.   The computer system of claim 37, wherein the computer is adapted to provide

2   the resource name and computer identifier in an encrypted file.

1   39.   The computer system of claim 22, wherein the configuration manager is

2   adapted to store billing information based on the restoration request.

1   40.   The computer system of claim 36, wherein the configuration manager is

2   adapted to store billing information based on the plurality of installed resources registered.

1   41.   The computer system of claim 40, wherein the configuration manager is

2   adapted to store billing information based on the plurality of installed resources registered.

1   42.   The computer system of claim 22, wherein the configuration database includes

2   resource identifying information, resource version information, and resource location

3   information.

1   43.   The computer system of claim 22, further comprising a plurality of computers,

2   each having installed resources registered in the configuration database, and wherein the

3   configuration manager is adapted to generate billing information using a first rate for

4   installed resources that are unique to one of the computers, and generate billing information

5   using second rate, different than the first rate, for installed resources that are common to at

6   least two of the computers.

1   44.   The computer system of claim 36, wherein the configuration manager is

2   adapted to provide the restorable resource by performing at least one of providing an address

3   for the installed resource and providing a previously stored installed resource, and the method

4   further comprises generating billing information using a first rate for installed resources that

5   registered by providing the address for the installed resource, and generating billing

6   information using a second rate, different than the first rate, for installed resources that are

7   registered by storing the installed resource.

1   45.   The computer system of claim 22, wherein the configuration manager is

2   adapted to share a secret key with the computer, encrypt a random number with the secret

3   key, generate a session key based on the secret key and the encrypted random number, and

4   provide the restorable resource using the session key.

1   46.   The computer system of claim 22, wherein the configuration manager is

2   adapted to identify an available upgrade for the restorable resource and offer the upgrade of

3   the restorable resource in lieu of the restorable resource.

1   47.   A program storage device, comprising:

2   a configuration database including resource information;

3   program instructions, that when executed by a processing device perform a method

4   for restoring a resource on a computer, the method comprising:

5   receiving a restoration request including a computer identifier

6   associated with the computer;

7   accessing the configuration database based on the computer identifier

8   to identify a restorable resource associated with the computer;

9   and

10   providing the restorable resource to the computer.

1   48.   The program storage device of claim 47, wherein providing the restorable

2   resource to the computer in the method includes providing the restorable resource to a server

3   connected to the computer.

1   49.   The program storage device of claim 47, wherein providing the restorable

2   resource to the computer in the method includes providing an address for the restorable

3   address.

1   50.   The program storage device of claim 47, wherein the method further

2   comprises authenticating the restoration request.

1   51.   The program storage device of claim 47, wherein providing the restorable

2   resource in the method comprises providing an encrypted restorable resource.

1   52.   The program storage device of claim 51, wherein the encrypted restorable

2   resource is encrypted with a private key, and the method further comprises providing a public

3   key corresponding to the private key to the computer.

1   53.   The program storage device of claim 47, wherein the method further
2 comprises encrypting the restorable resource with a public key associated with the computer.

1   54.   The program storage device of claim 47, wherein the method further
2 comprises generating billing information based on the restoration request.

1   55.   The program storage device of claim 47, wherein the method further
2 comprises generating billing information based on the resource information in the
3 configuration database.

1   56.   The program storage device of claim 47, wherein the configuration database
2 includes resource identifying information, resource version information, and resource
3 location information.

1   57.   The program storage device of claim 47, wherein the configuration database
2 includes information related to installed resources on a plurality of computers, and the
3 method further comprises:
4   generating billing information using a first rate for installed resources that are unique
5   to one of the computers; and
6   generating billing information using a second rate, different than the first rate, for
7   installed resources that are common to at least two of the computers.

1   58.   The method of claim 47, wherein providing the restorable resource in the
2 method comprises at least one of providing an address for the restorable resource and
3 providing a previously stored copy of the restorable resource, and the method further

4   comprises generating billing information using a first rate for providing the address for the

5   restorable resource, and generating billing information at a second rate, different than the first

6   rate, for providing the previously stored copy of the restorable resource.

1   59.   The program storage device of claim 47, wherein providing the restorable

2   resource in the method comprises:

3   sharing a secret key with the computer;

4   generating a session key based on the secret key and a random number; and

5   providing the restorable resource using the session key.

1   60.   The program storage device of claim 47, wherein the method further

2   comprises:

3   identifying an available upgrade for the restorable resource; and

4   offering the upgrade of the restorable resource in lieu of the restorable resource.

1   61.   A system for updating a computer system having a plurality of installed

2   resources, comprising a configuration manager adapted to store a configuration database

3   including resource information associated with the computer, receive a restoration request

4   from the computer including a computer identifier associated with the computer, access the

5   configuration database to identify a restorable resource based on the computer identifier

6   associated with the computer, and provide the restorable resource to the computer.

1   62.   The computer system of claim 61, wherein the configuration manager is

2   adapted to provide an address for the restorable address to the computer.

1   63.   The computer system of claim 61, wherein the configuration database includes

2 resource identifying information, resource version information, and resource location

3 information.

1   64.   A computer system for restoring resources on a computer, comprising:

2   means for storing resource information;

3   means for receiving a restoration request including a computer identifier associated

4   with the computer;

5   means for accessing the resource information based on the computer identifier to

6   identify a restorable resources associated with the computer; and

7   means for providing the restorable resource to the computer.